

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claims 16-43 are pending. Claims 16 and 41 have been amended editorially. The revisions to the second analysis portion in claim 16 are supported, for example, at paragraph [0044] of the specification.

Claims 16, 17, 19, 21-24, 28-33, 35, 37 and 38 have been rejected as obvious over Schibli in view of Taniike and Lin. Applicants respectfully traverse this rejection.

Claim 16 is directed to a sensor for measuring a component in blood and comprises a first analysis portion comprising a first electrode system on which at least an oxidoreductase that acts upon the component and a mediator are provided. The sensor also comprises a second analysis portion in which a Hct value of the blood is measured, which comprises a second electrode system that comprises a working electrode and a counter electrode. In the second analysis portion, a mediator is provided on the counter electrode but not on the working electrode for measuring the Hct value. In the second analysis portion, a voltage applied to blood causes an oxidation current or a reduction current independent of the mediator to flow between the working electrode and the counter electrode in determining the Hct value.

The rejection relies on Taniike as suggesting a biosensor having an analysis portion in which mediator is provided only on the counter electrode, which is one of the deficiencies of Schibli relative to claim 16. Applicants respectfully dispute the relevance of Taniike's biosensor to the device of claim 16.

Claim 16 requires a second analysis portion in which Hct determination takes place with an oxidation or reduction current that is independent of the mediator that is provided only on the counter electrode of the working electrode-counter electrode pair in the second analysis portion. In Taniike, enzyme is provided on the working electrode and a mediator is provided on the counter electrode. The measurement current detected in Taniike is dependent on the mediator. Specifically, paragraph [0048] of Taniike teaches that the measurement is "based on the oxidation of the ferrocyanide ion." As seen in paragraph [0042] of the reference, potassium ferrocyanide is the mediator applied to the counter electrode 5. Therefore, even if Taniike were to be combined with Schibli, the second analysis portion of claim 16 would not be obtained.

Moreover, Taniike discloses a glucose sensor. While the rejection thus necessarily assumes that an electrode system for glucose detection as in Taniike could be readily applied to an analysis portion that undertakes Hct determination, nothing in Schibli or anywhere else in the present record supports this assumption. The rejection relies on the Lin reference as suggesting that Schibli and Taniike could be combined and would be suitable for Hct detection. However, Lin specifically teaches that mediator should be provided on both the working electrode and the counter electrode. See, e.g. paragraph [0018] of Lin, which indicates that the reaction film including a mediator is applied to an area including both electrodes. Therefore, Lin actually would teach one of ordinary skill that Taniike's teachings concerning a mediator applied only to a counter electrode in a glucose-detecting electrode system should be disregarded when considering Hct-detecting electrode systems as required by claim 16. This is further supported by the teachings of Taniike itself, where paragraph [0050] teaches that the primary objective is to avoid the presence of the enzyme at the counter electrode, not to avoid the presence of mediator at the working electrode.

Claim 16, and its dependent claims 17, 19, 21-24, 28-33, 35, 37 and 38, thus are patentable over Schibli in view of Taniike and Lin and the rejection should be withdrawn. Applicants are not conceding the correctness of the rejection for the dependent claims.

Claims 25-27, 34, 39, 40, 41-42 and 43 have been rejected over Schibli, Taniike and Lin in combination with various additional references. These rejections are erroneous for at least the reasons set forth above for claim 16 and should be withdrawn. Applicants are not conceding the correctness of these rejections.

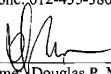
Claims 16, 18, 20 and 36 have been rejected as obvious over Yoshioka in view of Taniike and Lin. Taniike and Lin are cited for reasons similar those in the rejection using Schibli as the primary reference discussed above. Yoshioka teaches a device in which a common reaction layer 5 is provided for the working and counter electrodes (col. 5, lines 23-29). Therefore, Yoshioka is no more relevant for purposes of this rejection than Schibli was in the rejection discussed above, and the same distinctions apply. This rejection also should be withdrawn.

In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.

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